

## REMARKS

In a Nonfinal Office Action dated 16 June 2005, the Examiner acknowledged withdrawal of Claims 24-26 in response to a Restriction Requirement and rejected the remaining pending claims, Claims 1-23 under 35 U.S.C. §102 and §103.

In response to the Office Action dated June 16, 2005, Applicant hereby provides the corrected drawings for the application wherein the corrected drawings. The Applicant asserts that the corrected drawings contain equivalent matter as the prior drawings.

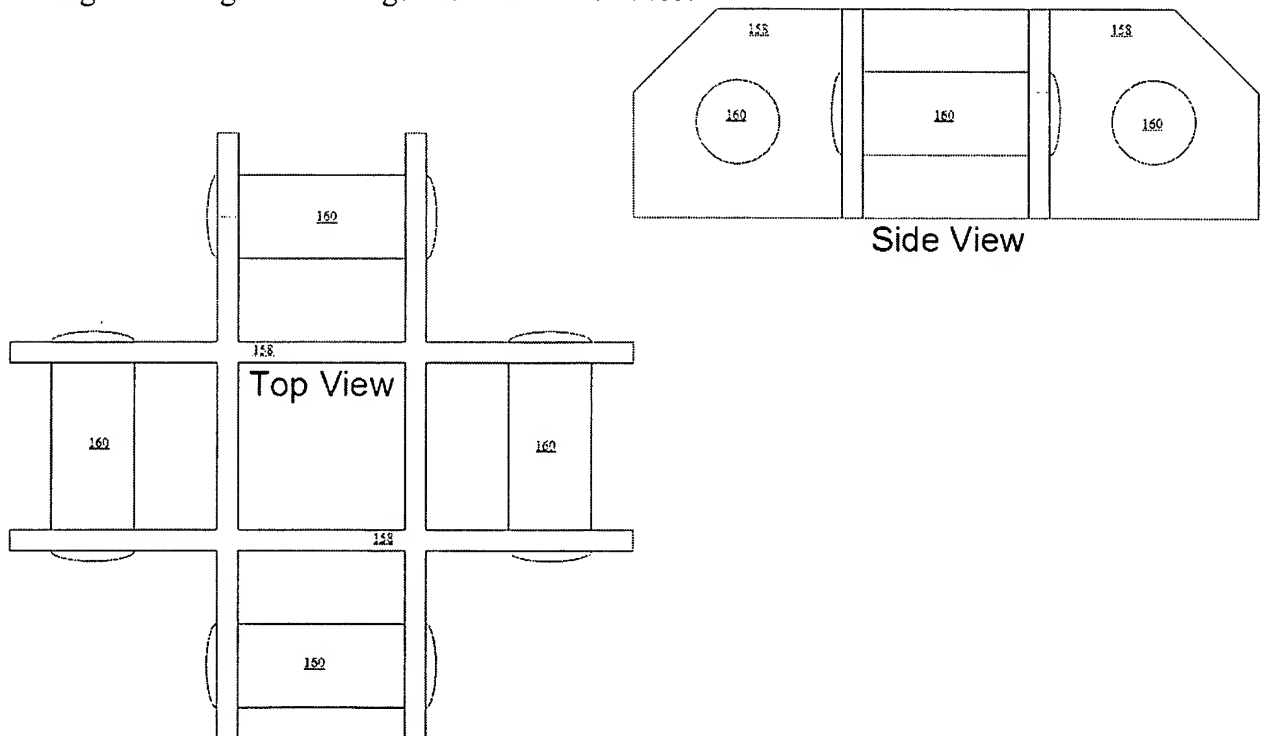
The prior hatching in the originally submitted drawings did indicate threading according to the standards that have been adopted for drafting by the industry. Active within the United States are the National Institute for Standardization and Technology (NIST) and American National Standards Institute (ANSI). The century old NIST, formerly known as the National Bureau of Standards, is a federal agency that develops and promotes technological standards. Because they are a federal agency and not a professional society, they have no membership per se. They are also non-regulatory, meaning that they do not enforce laws or establish mandatory standards which must be adopted. Much of their budget goes into supporting NIST research laboratories as well as various outreach programs.

ANSI, formerly called the American Standards Association, is responsible for aggregating and coordinating the standards creation process in the US. They are the private sector counterpart to NIST. While they do not create any standards themselves, they are a conduit for federally-accredited organizations in the field who are developing technical standards. The accredited standards developers must follow certain rules designed to keep the process open and equitable for all interested parties. ANSI then verifies that the rules have been followed by the developing organization before the proposed standard is adopted.

ANSI is also responsible for articulating a national standards strategy for the US. This strategy helps ANSI advocate in the international arena on behalf of United States interests. ANSI is the only organization that can approve standards as American national standards.

As the attached text indicates, the ANSI and the ASA before it has defined the suitable hatching for threads expressed in the ASA simplified form as drafting threads to “omit the V profile and indicate the crests and roots by lines perpendicular to the axis.” The text from which the quote is taken is the Thomas E. French book that was the standard text on drafting in most universities from just prior to World War II to the late fifties. ASA continues to define the simplified form in the same fashion as the earlier drawings indicate. The replacement drawings use the non-simplified drafting form and thus add no new matter to the specification.

Continuing with the Examiner’s objections, the Examiner indicated that the specification includes a terms that are violative of 35 U.S.C. §112, specifically calling out the “cruciate hinge 158. The applicant provides the following drawing to further the Examiner’s understanding of the original drawings submitted when filed.



It is the hope of the Applicant that the Examiner, in reviewing the drawings can see that the hinge 158 along with the hinge pins 160 do, in fact, form a cruciate hinge (as is evident from the top view) with four members about which the legs 156 pivot. The specification does, in fact, teach the pivotable nature at the final paragraph of page 5, to wit:

As mentioned above, the stand assembly supports a threaded shaft 138. The threaded shaft extends through an inner extrusion 144, itself telescopingly extending through an outer extrusion 146. Affixed to an outer wall of the outer extrusion 146 are cruciate hinges 158. The cruciate hinges 158 hold each of four legs 156 by means of hinge pins 160 passing through the upper ends of the legs 156. The legs 156 bear against the outer extrusion 146 to limit their rotational movement about the hinge pins 160. In the expanded position wherein the lower ends of the legs 156 are moved away from the inner extrusion 144, the legs present a base to the ground. The lower end of each leg preferably includes a foot 162 for receiving a threaded leveling shaft 164 affixed to a glide 166. Alternately, but not illustrated, a spike for the glide is provided, allowing stable placement of the stand assembly 100 to a softer surface capable of receiving the spike.

To answer the question that the Examiner sets forth, i.e. “the term ‘cruciate’ is used in conjunction with a ‘cross’ and it is unclear how the ‘L-shaped’ elements can be cruciate.” Applicant respectfully submits that the “L-shaped” elements the Examiner points out are only the four legs that form the cross. Using the terms hinge 158 and hinge pin 160 do themselves teach the swinging legs 156. To make the point even more clear, the Applicant has amended the Specification to rename the “cruciate hinges 158” to “cruciate hinge assembly 158” to indicate the specific nature of the relationship between the several legs of the cruciate hinge assembly 158. No new matter has been added as the drawings above only clarify the portrayed piece in the original submittal.

The noted informalities have been addressed herein including the Claim Objections.

### CLAIM REJECTIONS

The Applicant has cancelled Claims 14 through 23. All rejections to Claims 14 through 23 are considered moot in light of the cancellation and will not be addressed.

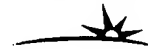
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The Claims 1-5, 7-9, and 12 were rejected as being anticipated by Collins. Collins does not teach "a retaining pin passing through the shaft axis perpendicular thereto and configured to bear against the interior wall in a manner to prevent rotation of the shaft within the void." The retaining pin is configured to hold the shaft as the nut is revolved about the shaft to extend and retract the shaft relative to the second tubular member. For this reason, Collins cannot be said to anticipate the application.

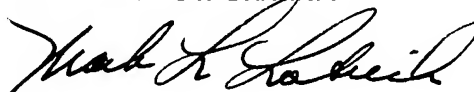
Claims 6, 10, and 13 were rejected as being obvious as Collins is applied in light of Laube. When the elements of Laube are added to Collins, the result is two distinct mechanisms. At best, when combined at the nut that the designs might be said to share in common, the Collins arrangement is configured to support great loads. Relative to the loads of Collins, the friction engagement of locking device does not pass through the shaft but well above it. As currently claimed, neither Collins nor Laube contain only the limitations taught by the current application.

### CONCLUSION

Having suitably addressed all of the Examiner's rejections, having replaced the drawings with equivalent drawings adding no new matter, and having amended the specification according to the Examiner's direction, the claims now stand in a condition for allowance. The Applicant requests that the Examiner address any questions to his attorney, the undersigned.

Respectfully submitted,

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A MANUAL OF  
ENGINEERING DRAWING  
FOR STUDENTS AND DRAFTSMEN

by Thomas E. French

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REVISED BY

Charles J. Vierck

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SEVENTH EDITION

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1947

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requires much less time. It is not necessary to draw the threads on the whole length of a long screw. They may be started at each end, as in Fig. 13-6.

In the Acme thread the  $29^\circ$  angle may, for convenience, be drawn at  $30^\circ$ . The stages in drawing an Acme thread are shown in Fig. 13-7.

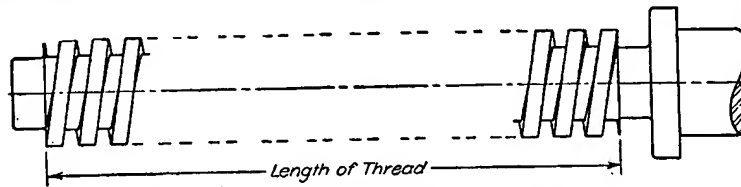


FIG. 13-6—Thread representation on a long screw.

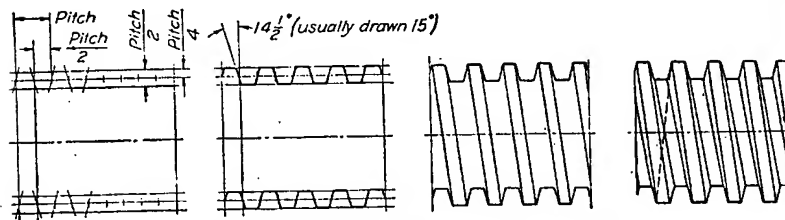


FIG. 13-7—Stages in drawing an Acme thread.

**13-8 Semiconventional threads—American Standard form.** It is suggested that threads of 1 inch and over in actual measurement, on both detail and assembly drawings, should show the thread form as in Figs. 13-8 and 13-9. In general, true pitch should be shown, though a small increase or

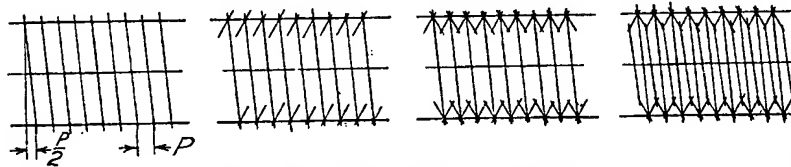


FIG. 13-8—Stages in drawing a V thread.

decrease in pitch is permissible so as to have even units of measure in making the drawing. For example, seven threads per inch may be increased to eight threads per inch, or four and one-half threads per inch may be decreased to four threads per inch. The student must keep in mind that this is to simplify the drawing, and that actual pitch must be specified in the dimensioning.

Thread form on diameters less than an inch is also shown in some sectioned views, Fig. 13-18. The pitch per inch must usually be decreased for ease of drawing and readability.

A V thread is drawn in the stages shown in Fig. 13-8, spacing the pitch

PAR. 13-9]

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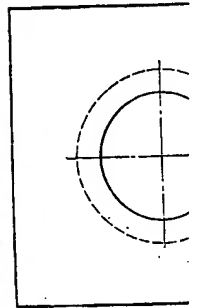
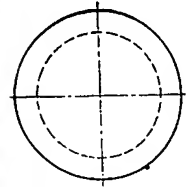
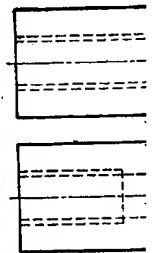


FIG. 13-9—Thread

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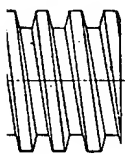
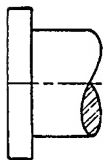


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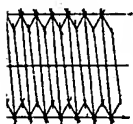
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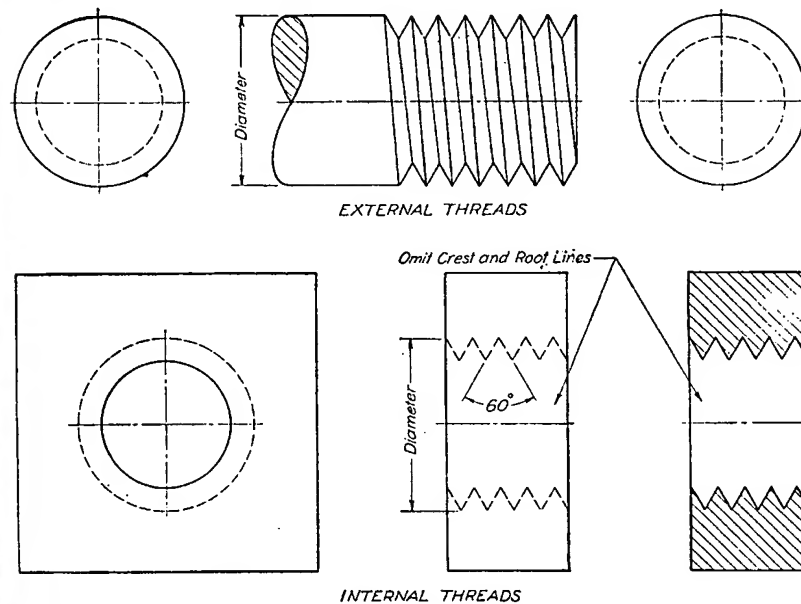


FIG. 13-9—Thread representation. (Suggested for threads drawn 1" or over on both  
assembly and detail drawings.)

**13-9 Conventional thread symbols.** The ASA provides two forms of  
thread symbols, "regular" and "simplified." It is recommended that these  
symbols be used for indicating threaded parts less than one inch in diameter  
(drawing size), and also that the regular symbols be used on assembly draw-  
ings and the simplified symbols on detail drawings.

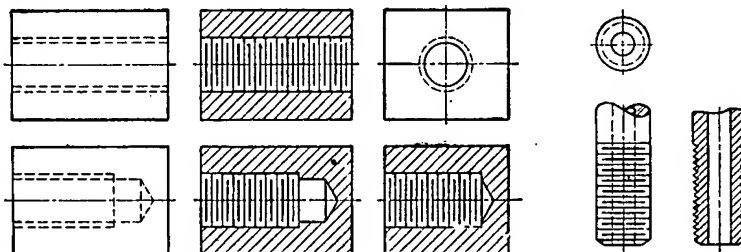


FIG. 13-10—ASA regular thread symbols.

**13-10** The ASA regular thread symbols, Fig. 13-10, omit the V profile  
and indicate the crests and roots by lines perpendicular to the axis.

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